

New and Invasive Disease Survey

Pierce's Disease of Grape

Pierce's disease could become a problem if it were introduced to Wisconsin vineyards. DATCP's pest survey team is currently conducting a survey for this disease. Please contact us if you see grapevines with the symptoms described here.

Target Diseases: Pierce's Disease **Causal Agent:** *Xylella fastidiosa* bacteria.

Plant Parts Affected: stem, shoots, leaves, flowers, fruits.

Symptoms on Grapevine: Drying and necrosis of leaf margins with surrounding tissue becoming yellow or red (fig. 1). The leaves usually drop leaving their petioles still attached to the vine (fig. 2). Brown and green patches on canes is common (fig. 3). Other symptoms include: Desiccation of fruit, defoliation, stunting of canes, dwarfing of shoots, and shriveling of leaves. Symptoms worsen during late summer and hot, dry weather.

Other Hosts: *X. fastidiosa* could infect many different hosts in Wisconsin: Alfalfa, maple, cherry, elm, sycamore, *Ginkgo*, common ivy, oak, grasses, and sedges. Many wild plants can host the pathogen without showing symptoms.

Vectors: Sharpshooters and spittlebugs.

If you find symptoms of Pierce's Disease on grape please contact:

DATCP - Plant Industry Laboratory
Anette Phibbs
2601 Agriculture Dr., Suite 150
Madison WI 53718
Phone: 608-224-4600
Email anette.phibbs@wisconsin.gov.

To send a sample, please collect all portions of the plant showing symptoms, especially actively growing portions. Multiple samples from the same plant increases likelihood of detecting *Xylella*.

Keep samples COOL but not frozen and ship overnight.

You can also call us to coordinate a pickup/drop-off.

Remember to note your contact information on the sample bag.

Sources:

Janse, J.D., Obradovic, A. (2010). *Xylella fastidiosa*: It's Biology, Diagnosis, Control, And Risks. *Journal of Plant Pathology*, 92 (1, Suppl.) S1.35-S1.48

EPPO. (2016). PM 7/24 (2) *Xylella fastidiosa*. *EPPO Bulletin*, 46(3), 463-500.

Galvez, L.C., Korus, K., Fernandex, J., Behn, J.L., and Banjara, N. 2010. The Threat Of Pierce's Disease To Midwest Wine And Table Grapes. Online. Apsnet Features. Doi:10.1094/Apsnetfeature-2010-1015.

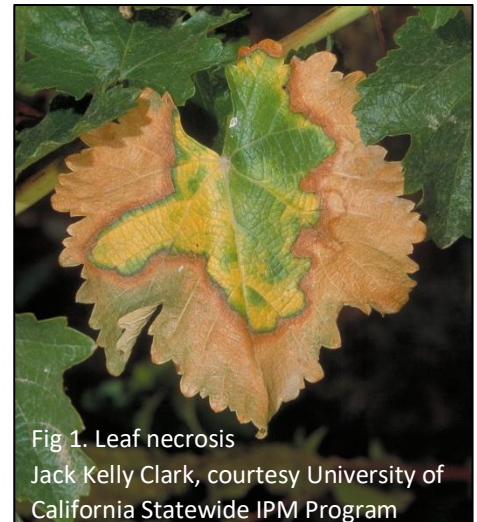


Fig 1. Leaf necrosis
Jack Kelly Clark, courtesy University of California Statewide IPM Program

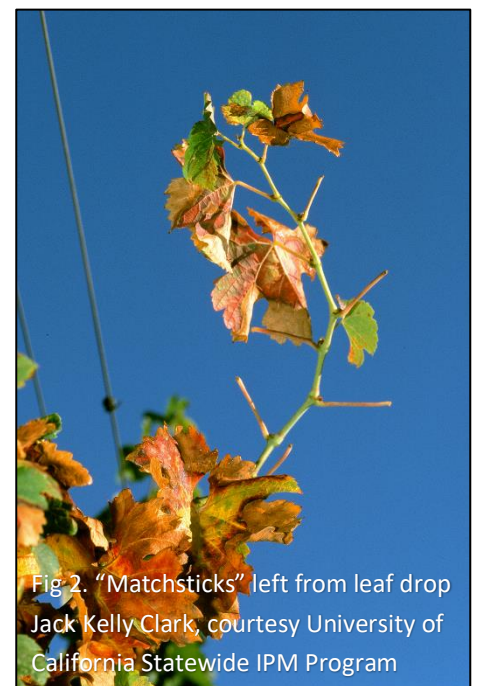


Fig 2. "Matchsticks" left from leaf drop
Jack Kelly Clark, courtesy University of California Statewide IPM Program



Fig 3. Alternating coloration on canes
John Hartman, University of Kentucky, Bugwood.org